

Research Institution

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## Regional Anesthesia Simulator for Training of Resident and Staff Pain Management Specialists

**Award Information** Agency: Department of Defense Amount: \$749,841.00 Program: SBIR Contract: W81XWH-06-C-0052 Solitcitation Year: 2005 Solicitation Number: 2005.2 Branch: Army Award Year: 2007 Phase: Phase II Agency Tracking Number: O052-H09-3200 Solicitation Topic Code: OSD05-H09 **Small Business Information ENERGID TECHNOLOGIES** 124 Mount Auburn Street, Suite 200 North, Cambridge, MA, 02138 Hubzone Owned: Woman Owned: Ν Socially and Economically Disadvantaged: Ν Duns: 007341493 Principal Investigator Name: John Hu Title: Director Medical System a Phone: (888) 547-4100 Email: jjh@energid.com **Business Contact** Name: Neil Tardella Title: COO Phone: (888) 547-4100 Email: &nbspnmt@energid.com



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## **Abstract**

In this project, Energid will develop a regional anesthesia simulation and training system. Energid will create a natural, immersive virtual environment unlike any developed before, incorporating haptic, visual and auditory feedback. Anesthesiologists will use the untethered needle and syringe in simulated regional anesthesia procedures. This will be accomplisehed by a novel vision-based tracking system and innovative devices capable of generating haptic feedback during needle insertion, needle injection and palpation through MR (magneto-rheological) fluid control. Both stimulator-based and ultrasound imaging guided regional anesthesia procedures will be simulated in the training system. The simulation system will provide initial training for students, as well as continuity training for seasoned anesthesiologists requiring ongoing training for procedures that demand significant technical skill.

\* information listed above is at the time of submission.